

# PAPERS BY BELL LABORATORIES AUTHORS

## PHYSICAL SCIENCES

**Amorphous Concentrated Spin Glasses:  $MnX$  ( $X=Ge, C, Si-Te$ ).** J. J. Hauser, *Phys Rev*, 22 (September 1, 1980), pp 2554-9.

**Avalanche-Induced Hot Electron Injection and Trapping in Gate Oxides on p-Si.** A. K. Sinha, W. S. Lindenberger, W. D. Powell, and E. I. Povelonis, *J Electrochem Soc*, 127 (1980), pp 2046-9.

**Block Copolymer Theory. 6. Cylindrical Domains.** E. Helfand and Z. R. Wasserman, *Macromolecules*, 13 (July-August 1980), pp 994-8.

**Convection in Rectangular Cavities with Differentially Heated End Walls.** P. G. Simpkins and T. D. Dudderar, *Europhys Conf Abstr Physico Chemical Hydrodynamics* 3, 3F (April 1980), pp 268-73.

**Crystalline Transformations in Spherulites of Poly(vinylidene Fluoride).** A. J. Lovinger, *Polymer*, 21 (1980), pp 1317-22.

**Effects of Atomic Motion on Degenerate 4-Wave Mixing.** P. F. Liao and L. M. Humphrey, *Proceedings of the International Conference on Laser '79*, edited by V. J. Corcoran, McLean, Virginia: STS Press, 1980, pp 473-4.

**The Effects of Velocity-Changing Collisions on Two-Photon and Stepwise Absorption Spectroscopic Lineshapes.** P. F. Liao, J. E. Bjorkholm, and P. R. Berman, *Phys Rev A*, 21 (June 1980), pp 1927-38.

**Exploratory Data Analysis in the Geophysical Sciences.** B. Kleiner and T. E. Graedel, *Rev Geophys Space Phys*, 18, No. 3 (August 1980), pp 699-717.

**Hydrogen in Semi-Insulating Polycrystalline Silicon Films.** W. R. Knolte, H. R. Maxwell, Jr., and R. E. Benenson, *J Appl Phys*, 51 (August 1980), pp 4385-90.

**Hyperfine-Induced Singlet-Triplet Mixing in  $^3He$ .** P. F. Liao, R. R. Freeman, R. Panock, and L. M. Humphrey, *Optics Commun*, 34 (August 1980), pp 195-8.

**The Influence of Structural Disorder on the Exciton Spectra of  $K^+CN_x-Cl_{1-x}$ .** M. A. Bosch, *J Phys C*, 25 (1980), pp L671-5.

**A Model of SIPOS Deposition Based on Infrared Spectroscopic Analysis.** W. R. Knolte and H. R. Maxwell, Jr., *J Electrochem Soc*, 127 (October 1980), pp 2254-9.

**Observation by NMR of the Formation of Localized Electronic States in an Ionic Alloy.** R. Dupree, D. J. Kirby, W. Freyland, and W. W. Warren, *Phys Rev Lett*, 45 (July 14, 1980), pp 130-3.

**Oxidation of Tantalum Silicide on Polycrystalline Silicon.** S. P. Jurarka, D. B. Fraser, W. J. Lindenberger, and A. K. Sinha, *J Appl Phys*, 51 (June 1980), pp 3241-5.

**Piezoelectric  $Cs_2S_2O_8$ : Room Temperature Crystal Structure.** R. Liminga, S. C. Abrahams, and J. L. Bernstein, *J Chem Phys*, 73 (August 1, 1980), pp 1432-8.

**Surface Enhanced Raman Scattering in Multilayer Film Structures (Abstract).** C. A. Murray, D. L. Allarn, and M. R. Rhinewine, *Proceedings of the VIIth International Conference on Raman Spectroscopy*, August 4-8, 1980, edited by W. F. Murphy, Amsterdam: North-Holland, 1980, p 406.

## MATHEMATICS

**Baxter Permutations Rise Again.** C. L. Mallows, *J Combinatorial Theor*, Ser A, 27 (November 1979), pp 394-6.

**Indirect Rate Distortion Problems.** H. S. Witsenhausen, *IEEE Trans Inform Theor*, IT-26 (September 1980), pp 518-21.

**A Weighted Overlap-Add Method of Short-Time Fourier Analysis/Synthesis.** R. E. Crochiere, *IEEE Trans Acoustics Speech and Signal Process*, ASSP-28, No. 1 (February 1980), pp 99-102.

## COMPUTING

**C on the Tandem 16.** A. M. Usas, *Proc Tandem Users Group Convention*, San Diego, California, September 15-17, 1980.

**Information Theory in Digital Testing—A New Approach to Functional Test Pattern Generation.** V. D. Agrawal, IEEE Int Conf on Circuits and Computers (October 1980), pp 928-31.

**Logic and Fault Simulations of the DSP, A VLSI Digital Signal Processor.** I. I. Eidumiati and R. N. Gadenz, Proc 1980 Int Conf on Circuits and Computers, ICCS 80 (October 1980), pp 948-52.

**A Model for a Tandem Software Development System.** A. M. Usas, Proc Tandem Users Group Convention, San Diego, California, September 15-17, 1980.

**A Modified Adaptive Transform Coding Scheme With Post-Processing Enhancement.** J. M. Tribolet and R. E. Crochiere, Proc IEEE Int Conf on Acoustics Speech and Signal Process (April 1980), pp 336-9.

**Network Management: Surveillance and Control of a Modern Telecommunications Network.** D. A. Kettler, IEEE Int Conf on Circuits and Computers, 2 (October 1980), pp 834-7.

**On Retrieval From a Small Version of a Large Data Base.** A. Walker, Proc Sixth Int Conf Very Large Data Bases, IEEE Conf Proc (October 1980), pp 47-54.

**Problems in Physical Property Data Retrieval.** D. T. Hawkins, J Chem Inf Comput Sci, 20 (August 1980), pp 143-5.

## ENGINEERING

**Administration of Pair Gain Systems.** G. R. Boyer and M. A. Schwartz, Natl Telecommun Conf 1980, 1 (December 1, 1980), pp 12.2.2-12.2.6.

**Efficient Waveguide Electro-Optic TE $\leftrightarrow$ TM Mode Converter/Wavelength Filter.** R. C. Alferness, Appl Phys Lett, 36 (April 1979), pp 513-5.

**ESD Damage from Triboelectrically Charged IC Pins.** P. R. Bossard, R. G. Chemelli, and B. A. Unger, *Electrically Overstress/Electrostatic Discharge Symposium Proceedings, 1980*, New York: Reliability Analysis Center RADC/RBRAC Griffiss AFB.

**A Fast-Switching Low-Loss, 12-GHz Microstrip 4-PSK Path Length Modulator.** B. Glance and N. Amitay, IEEE Trans Commun, COM-28, No. 10 (October 1980), pp 1824-8.

**A Fast Low-Loss Low-Drive 14-GHz Microstrip PIN Phase Shifter.** B. Glance, IEEE Trans Microwave Theor Tech, MTT-28, No. 6 (June 1980), pp 669-71.

**Integrated Services Digital Network.** T. L. Powers, Signal, 34, No. 10 (August 1980), pp 45-6.

**Intermag-80 Session Chairman's Summary.** R. D. Pierce, IEEE Magnetics Society Newsletter, 16 (Summer 1980), p 1.

**MOS Compatibility of High-Conductivity TaSi<sub>2</sub>/n<sup>+</sup> Poly-Si Gates.** A. K. Sinha, W. S. Lindenberger, D. B. Fraser, S. P. Murarka, and E. N. Fuls, IEEE Trans Electron Devices, ED-27 (1980), pp 1425-30.

**Numerical Analysis of the Resistance of Interference Fit Pin Connections.** E. Guancial, IEEE Trans Components, Hybrids, and Manufact Tech, CHMT-3 (September 1980), pp 402-7.

**Optimization of Multimode Fiber Bandwidth Via Differential Group Delay Analysis.** M. J. Buckler, J. W. Shiever, and F. P. Partus, Conf Proc—Sixth European Conf on Optical Commun (September 15, 1980), pp 33-6.

**Picosecond Optical Sampling Technique for Measuring the Speed of Fast Electro-Optic Switch/Modulators.** R. C. Alferness, N. P. Economou, and L. L. Buhl, Appl Phys Lett, 37 (October 1, 1980), pp 597-9.

**Refractory Silicides for Integrated Circuits.** S. P. Murarka, J Vac Sci Technol, 17 (July-August 1980), pp 775-92.

**Solid State Microwave Power Amplifiers Used in the Bell System.** J. W. Gewartowski, Microwave J, 23 (September 1980), pp 68 and 72.

**Stress Distributions Around an Interference-Fit Pin Convection in a Plated-Thru-Hole.** R. P. Goel and E. Guancial, IEEE Trans Components, Hybrids, and Manufact Tech, CHMT-3 (September 1980), pp 392-402.

## SOCIAL AND LIFE SCIENCES

**An Interpretation of the Log Likelihood Ratio as a Measure of Waveform Coder Performance.** R. E. Crochiere, J. M. Tribolet, and L. R. Rabiner, IEEE Trans Acoustics, Speech and Signal Process, ASSP-28, No. 3 (June 1980), pp 318-23.

**Modern Methods of Investigation in Speech Production.** O. Fujimura, *PHONETICA*, 37, Nos. 1, 2 (1980), pp 38-54.

**On the Measurement of Waveform Coder Distortion Using the Log Likelihood Ratio.** R. E. Crochiere, J. M. Tribolet, and L. R. Rabiner, *Proc 1980 Int Conf on Acoustics, Speech and Signal Process* (April 1980), pp 340-3.

**Two Acoustical Inverse Problems in Speech and Hearing.** M. M. Sondhi, a chapter in *Mathematical Methods and Application of Scattering Theory*, New York: Springer, 1981, pp 290-300.

## **CONTENTS, MAY-JUNE 1981**

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